

Application No. 10/667,238  
Response to Office Action of November 9, 2006

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A paper or paperboard comprising a paper web that comprises cellulosic fibers, starch and a boron-containing compound, wherein the amount of boron-containing compound is equal to or less than about 7% by weight of the starch; and greater than 50% of the starch and boron-containing compound is located at ~~or near the~~ surfaces at least one surface of the web.

2. (Previously Presented) The paper or paperboard of claim 1, further comprising a sizing, wherein the sizing comprises at least a portion of a total amount of the starch and at least a portion of a total amount of the a boron-containing compound.

3. (Cancelled)

4. (Cancelled)

5. (Original) The paper or paperboard of claim 1 wherein the amount of starch is equal to or less than about 200 lbs per ton of fiber.

6. (Cancelled)

7. (Original) The paper or paperboard of claim 1 wherein the boron-containing compound is selected from the group consisting of boric acid and borate metal salts.

8. (Previously Presented) The paper or paperboard of claim 1, wherein the boron-containing compound is selected from the group consisting of boric acid, borax, and zinc borate.

9. (Original) The paper or paperboard of claim 1 wherein the boron-containing compound and the starch form a complex.

Application No. 10/667,238

Response to Office Action of November 9, 2006

10. (Original) The paper or paperboard of claim 1 wherein the starch is an anionic starch.

11. (Original) The paper or paperboard of claim 1 wherein the starch is a cationic starch.

12. (Original) The paper or paperboard of claim 1 wherein the starch is an amphipathic starch.

13. (Original) The paper or paperboard of claim 1 wherein the starch is selected from the group consisting of corn starch, wheat starch, potato starch, rice starch, tapioca starch, and sago starch.

14. (Previously Presented) A method for making the paper or paperboard according to Claim 1, comprising:

providing a papermaking furnish comprising cellulosic fibers, starch and a boron-containing; forming a fibrous web from the papermaking furnish; and drying the web

15. (Original) The method of claim 14 further comprising calendering the web to provide a finished paper or paperboard.

16. (Original) The method of claim 14 which further comprises mixing converted starch and at least a portion of the boron-containing compound to provide a slurry and adding the slurry to a cellulosic fiber furnish to provide the papermaking furnish.

17. (Original) The method of claim 14 which further comprises mixing unconverted starch and at least a portion of the boron-containing compound to provide a slurry, cooking the slurry to convert the starch and adding the cooked slurry to a cellulosic fiber furnish to provide the papermaking furnish.

18. (Original) The method of claim 1 which further comprises adding the boron-containing compound and the converted starch individually to a cellulosic fiber furnish to provide the

Application No. 10/667,238  
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papermaking furnish.

19. (Previously Presented) A method for making the paper or paperboard according to Claim 1, comprising:

providing a papermaking furnish including cellulosic fibers;

forming a fibrous web from the papermaking furnish;

drying the web; and

sizing the web by applying slurry to the web, the slurry including starch solids and a boron-containing compound.

20. (Original) The method of claim 19 further comprising calendering the sized web to provide a finished paper or paperboard.

21. (Previously Presented) The paper or paperboard according to Claim 1, wherein the amount of boron-containing compound is from about 0.2% to about 7% by weight of the starch.

22. (Previously Presented) The paper or paperboard according to Claim 1, wherein the amount of boron-containing compound is less than 5% by weight of the starch.

23. (Previously Presented) The paper or paperboard according to Claim 1, wherein the amount of boron-containing compound is from about 0.2 to less than 5% by weight of the starch.